

NOMENCLATRURAL CHANGES FOR THREE PREOCCUPIED TRILOBITES GENERA

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[**Özdikmen, H.** 2008. Nomenclatural changes for three preoccupied Trilobites genera. *Munis Entomology & Zoology* 3 (1): 317-320]

ABSTRACT: Three junior homonyms were detected amongst the Trilobites genera and the following replacement names are proposed: *Proacanthocephalus* nom. nov. for *Acanthocephalus* Qiu, 1983; *Paleonelsonia* nom. nov. for *Nelsonia* Palmer & Gatehouse, 1972 and *Paleoaethia* nom. nov. for *Aethia* Qian & Zhou. Accordingly, new combinations are herein proposed for the species currently included in these genera respectively: *Proacanthocephalus longispinus* (Qiu, 1983) comb. nov.; *Paleonelsonia schesis* (Palmer & Gatehouse, 1972) comb. nov. and *Paleoaethia rectangula* (Qian & Zhou, 1984) comb. nov.

KEY WORDS: nomenclatural changes, homonymy, replacement names, Trilobites.

The purpose of the present paper is to bring the taxonomy of Trilobita into accordance with the requirements of the International Code of Zoological Nomenclature (1999). In an effort to reduce the number of homonyms in Trilobita, I recently found three genus names which had been previously published for other taxa, making them junior homonyms. In accordance with Article 60 of the International Code of Zoological Nomenclature, I propose substitute names for these names.

TAXONOMY

Order PTYCHOPARIIDA

Suborder PTYCHOPARIINA

Super Family PTYCHOPARIOIDEA

Family PROASAPHISCIDAE

Genus PROACANTHOCEPHALUS nom. nov.

Acanthocephalus Qiu, 1983. [Paleontological atlas of east China. 1. Volume of Early Paleozoic.]. Geological Publishing House, Peking: 152. (Trilobita: Ptychopariida: Ptychopariina: Ptychoparioidea: Proasaphiscidae). Preoccupied by *Acanthocephalus* Koelreuter, 1771. Nov. Comm. Acad. Sci. Petrop., 15, 500, 503. (Acanthocephala: Palaeacanthocephala: Echinorrhynchida: Echinorrhynchidae).

Remarks on nomenclatural change: The name *Acanthocephalus* was initially introduced by Koelreuter, 1771 as a genus name for Acanthocephala. It is still used as a valid genus name in Acanthocephala (e. g. Monks, 2001). It is a rich genus. For the present, the genus includes approximately 50 species. Subsequently, Qiu, 1983 described a trilobite genus of the family Proasaphiscidae (with the type species *Acanthocephalus longispinus* Qiu, 1983 from Hsuehuang, Fm, Jiangsu, China) under the same generic name. Also it is still used as a valid genus

name in Muridae (e. g. Jell & Adrain, 2002). Thus, the genus *Acanthocephalus* Qiu, 1983 is a junior homonym of the genus *Acanthocephalus* Koelreuter, 1771. So I propose for the genus *Acanthocephalus* Qiu, 1983 the nomen novum *Proacanthocephala*.

Etymology: from the preexisting middle-cambrian genus name *Acanthocephalus*.

Summary of nomenclatural changes:

Proacanthocephala **nom. nov.**

= *Acanthocephalus* Qiu, 1983 (non Koelreuter, 1771)

Proacanthocephalus longispinus (Qiu, 1983) **comb. nov.**

= *Acanthocephalus longispinus* Qiu, 1983

Order PTYCHOPARIIDA
Suborder PTYCHOPARIINA
Super Family PTYCHOPARIOIDEA
Family PTYCHOPARIIDAE
Genus PALEONELSONIA nom. nov.

Nelsonia Palmer & Gatehouse, 1972. Prof.Pap.U.S.geol.Surv. 456-D: D27. (Trilobita: Ptychopariida: Ptychopariina: Ptychoparioidea: Ptychopariidae). Preoccupied by *Nelsonia* Merriam, 1897. Proc. biol. Soc. Washington, 11, 277. (Mammalia: Theria: Eutheria: Rodentia: Myomorpha: Muridae: Sigmodontinae).

Remarks on nomenclatural change: Palmer & Gatehouse (1972) proposed the genus name *Nelsonia* with the type species *Nelsonia schesis* Palmer & Gatehouse, 1972 from Nelson Lst, Antarctica. It is still used as a valid genus name in Trilobita (e. g. Jell & Adrain, 2002). Unfortunately, the generic name was already preoccupied by Merriam (1897), who had described the mammal genus *Nelsonia* with the type species *Nelsonia neotomodon* Merriam, 1897 in the family Muridae. Also it is still used as a valid genus name in Muridae (e. g. Wilson & DeeAnn, 1993). For the present the genus includes two species as *Nelsonia goldmani* Merriam, 1903 (Nelson and Goldman's woodrat) and *Nelsonia neotomodon* Merriam, 1897 (diminutive woodrat). Thus, the genus *Nelsonia* Palmer & Gatehouse, 1972 is a junior homonym of the generic name *Nelsonia* Merriam, 1897. Under the Zoological Code (ICZN) it must be rejected and replaced. So I propose a new replacement name *Paleonelsonia* **nom. nov.** for *Nelsonia* Palmer & Gatehouse, 1972.

Etymology: from the preexisting middle-cambrian genus name *Nelsonia*.

Summary of nomenclatural changes:

Paleonelsonia **nom. nov.**

= *Nelsonia* Palmer & Gatehouse, 1972 (non Merriam, 1897)

Paleonelsonia schesis (Palmer & Gatehouse, 1972) **comb. nov.**

= *Nelsonia schesis* Palmer & Gatehouse, 1972

Order Incertae Sedis
Family Incertae Sedis
Genus *PALEOAETHIA* nom. nov.

Aethia Qian & Zhou, 1984. Acta palaeont. sin. 23 (2): 183. (Trilobita: Incertae Sedis). Preoccupied by *Aethia* Merrem, 1788. Vers. Grundr. Gesch. Vögel, 1, Tent. Nat. Syst. Av., 7, 13, 20. (Aves: Ciconiiformes: Alcidae).

Remarks on nomenclatural change: Firstly, the genus *Aethia* was established by Merrem, 1788 with the type species *Aethia cristatella* (Pallas, 1769) for Aves. *Aethia* is a genus of auklets. It is still used as a valid genus name in Aves (e. g. Banks et al., 1987; Monroe & Sibley, 1993; Banks et al., 2003). It occurs only in North America. For the present, the genus includes 4 species as *Aethia cristatella* (Pallas, 1769); *Aethia psittacula* (Pallas, 1769); *Aethia pygmaea* (Gmelin, 1789) and *Aethia pusilla* (Pallas, 1811). Later, the genus name *Aethia* was proposed by Qian & Zhou, 1984 for trilobites with the type species *Aethia rectangula* Qian & Zhou, 1984 from Kunshan County, Jiangsu, China. Also it is still used as a valid genus name in Muridae (e. g. Jell & Adrain, 2002). However, the name *Aethia* Qian & Zhou, 1984 is invalid under the law of homonymy, being a junior homonym of *Aethia* Merrem, 1788. So I propose to substitute the junior homonym name *Aethia* Qian & Zhou, 1984 for the nomen novum *Paleoaethia*.

Etymology: from the preexisting middle-cambrian genus name *Aethia*.

Summary of nomenclatural changes:

Paleoaethia **nom. nov.**

= *Aethia* Qian & Zhou, 1984 (non Merrem, 1788)

Paleoaethia rectangula (Qian & Zhou, 1984) **comb. nov.**

= *Aethia rectangula* Qian & Zhou, 1984

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